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25. (Thrice Amended) The method of claim 18, further comprising isolating the long-term repopulating HSCs from other HPCs using one of an antibody that is specific for an early marker and an antibody that is specific for a late marker.

(Amended) The method of claim 18, wherein the HPCs are isolated using a method selected from the group consisting of isolating a cell based on a physical property of the cell, and isolating a cell based on a biochemical/biological property.

(Amended) The method of claim 18, further comprising isolating the long-term repopulating HSCs from other HPCs using an antibody that is specific for a marker selected from the group consisting of CD34, Thy-1, c-kit receptor, flt3 receptor, AC133, vascular endothelial growth factor receptor I, vascular endothelial growth factor receptor III, Tie1, Tek, basic fibroblast growth factor receptor, CD2, CD3, CD4, CD7, CD8, CD15, CD16, CD19, CD20, CD33, CD38, CD45, CD56, CD71, and glycophorin A.

HSCs are isolated from other HPCs by selecting HPCs which do not express a late marker selected from the group consisting of

CD2, CD3, CD4, CD7, CD8, CD15, CD16, CD19, CD20, CD33, CD38, CD56, CD71, and glycophorin A

using an antibody that is specific for the late marker.

45 86. (Amended) The method of claim \$5, wherein the long-term repopulating HSCs are isolated using an antibody that binds specifically with a late marker selected from the group consisting of CD2, CD3, CD4, CD7, CD8, CD15, CD16, CD19, CD20, CD33, CD38, CD56, CD71, and glycophorin A.